

Listing of Claims

1. (currently amended) A synchronous vehicle detector system comprising;

~~a plurality of~~ at least two vehicle detectors each having at least one vehicle loop to which that detector can be ~~intermittently~~ coupled for vehicle sampling purposes, one of said vehicle detectors comprising a master vehicle detector and the remaining ones of said at least two vehicle detectors comprising slave vehicle detectors ; and

means for synchronizing the operation of said ~~plurality of~~ at least two vehicle detectors so that said master vehicle detector can control the commencement of vehicle sampling of said slave vehicle detectors, said synchronizing means including a synch input and a synch output for each of said plurality of at least two vehicle detectors, the synch output of said master vehicle detector being coupled to the synch input of said slave vehicle detectors, the synch output of said slave vehicle detectors being coupled to the synch input of said master vehicle detector, said slave vehicle detectors being responsive to the receipt of a synch input signal at said synch input thereof to enable vehicle sampling by said slave vehicle detectors, said master vehicle detector being responsive to the receipt of a synch input signal from at least one of said slave vehicle detectors to enable vehicle sampling by said master vehicle detector.

2. (currently amended) The invention of claim 1 wherein said means for synchronizing comprises circuitry incorporated in said vehicle detectors for enabling specifying one of said at least two vehicle detectors as said master vehicle detector to control the synchronous operation of the remaining ones of said plurality of said at least two vehicle detectors.

3. (previously presented) The invention of claim 1 wherein said vehicle detector system is configured for series synchronization.

4. (previously presented) The invention of claim 1 wherein said vehicle detector system is configured for parallel synchronization.

5. (currently amended) A method of controlling the operation of ~~a plurality of~~ at least two vehicle detectors in a synchronous manner, said method comprising the steps of:

- (a) assigning one of said vehicle detectors the role of master detector; and
- (b) operating the remaining number of vehicle detectors as slave detectors to the master, said step (b) of operating including the steps of supplying a synch signal from the master vehicle detector to the at least one slave vehicle detector, permitting the at least one slave vehicle detector to commence vehicle sampling in response to the receipt of a synch signal, supplying a synch signal from the at least one slave vehicle detector to the master vehicle detector after the at least one slave vehicle detector has finished the vehicle sampling, and permitting the master vehicle detector to commence vehicle sampling in response to the receipt of a synch signal from the at least one slave vehicle detector.

6. (previously presented) The method of claim 5 wherein said step (b) is performed in series synchronization.

7. (previously presented) The method of claim 5 wherein said step (b) is performed in parallel synchronization.